Case 1:13-cv-03777-AKH Document 78 Filed 03/17/14 Page 1 of 91 E357INT1

1 UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF NEW YORK 2 -----x 3 INTELLECTUAL VENTURES II LLC, 4 Plaintiff, 5 13 Civ. 3777 (AKH) v. 6 JP MORGAN CHASE & CO., 7 Defendant. 8 9 March 5, 2014 10:15 a.m. 10 Before: 11 HON. ALVIN K. HELLERSTEIN 12 District Judge 13 APPEARANCES 14 FEINBERG DAY ALBERTI & THOMPSON LLP Attorneys for Plaintiff 15 BY: DAVID ALBERTI 16 SAL LIM JAKE ZOLOTOREV 17 DUNNEGAN & SCILEPPI LLC 18 Attorneys for Plaintiff BY: WILLIAM DUNNEGAN 19 DONTZIN NAGY & FLEISSIG LLP 20 Attorneys for Defendant BY: TIBOR NAGY 21 DURIE TANGRI LLP 22 Attorneys for Defendant BY: CLEM ROBERTS 23 KIRKLAND & ELLIS LLP 24 Attorneys for Defendant BY: KENNETH ADAMO 25 BRENT RAY

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us, Scott Watson.

1 (In open court) THE COURT: Good morning. Be seated. Intellectual 2 Ventures. You're Mr. Lim? 3 4 MR. LIM: Yes, your Honor. 5 THE COURT: Introduce your colleagues, please. 6 MR. LIM: Sure. Your Honor, my name is Sal Lim with 7 Feinberg Day Alberti & Thompson. With me is David Alberti and Jake Zolotorev of Feinberg Day Alberti & Thompson. And 8 9 Dunnegan is our local counsel. And with us are our clients, 10 Melissa Finocchio and Cris Leffler. And also with us is our 11 technician that is going to be helping us with the 12 presentation. 13 THE COURT: Most valuable person here. And his name 14 is? 15 MR. LIM: Michael --16 MR. SKRZYPEK: -- Skrzypek. 17 THE COURT: Good morning, all. 18 MR. NAGY: Your Honor, Tibor Nagy with Dontzin Nagy here for defendants. 19 20 THE COURT: How do you spell your name, Mr. Nagy? 21 MR. NAGY: N-a-g-y, your Honor. And with me from 22 Durie Tangri is Clem Roberts, and from Kirkland & Ellis, Mr.

Adamo, Ken Adamo, and Brent Ray. Our client is here as well,

Michael Pearce. And we too have a technology assistant with

THE COURT: Mr. Pearce, if you wear a jacket, you can come up to counsel table.

MR. PEARCE: I'm fine here.

THE COURT: All right. That's everybody?

I have received the Elcommerce.com, Inc. case decided by the Federal Court of Appeals sent to me by Mr. Alberti.

I've read it.

I think there is a contest going on between the federal Court of Appeals and some of the district courts about how much clarity is required under Section 112. I was reversed in a case called Biosig v. Nautilus in the federal Court of Appeals, and the Supreme Court has granted certiorari. I don't know if it will get up there this term or next term, but I think we'll have some Supreme Court clarification. Whether that's a clarification or further obfuscation will await history, but the Supreme Court will deal with the issue of Section 112 and the scope and reach and command.

What I'd like to do, if it makes sense to both of you, is to go down the terms in issue one by one and hear the contentions of interpretation, and see if I could suggest what I believe would be a Markman construction to define the case. We will do this as we go along, and eventually the submission that both of you made jointly -- which I appreciate very much -- with my construction will be the order that will issue in this case.

THE COURT: Anomaly is not predetermined.

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MR. NAGY: Your Honor, if I might on that point, we believe that in this patent it has to be, and the reason it has to be is because the anomalies at issue here are things that you tell the system to look for. Something can't be unusual in

a computer if you don't tell the computer what usual is. It can't be unexpected if you don't tell the computer what expected is.

And every single claim in this patent, your Honor, all of them, have one term in common. And if I could, your Honor, can we get slide 9 up, please?

Slide 9, your Honor, is claim 1 of the patent. And in blue, Judge, is a phrase that's in every single one of the 33 claims at issue here: Detecting an anomaly in the network computer system using network-based intrusion detection techniques comprising, analyzing data.

And we put "network-based intrusion detection techniques" in italics for your Honor because those are things that were preexisting. This patent doesn't say it invented those techniques; instead it says use those techniques differently. And it gives the reader examples of those techniques, three examples in the specification.

The one commonality to all of those techniques, Judge, is they all use predetermined patterns of data. They have to.

Because if you didn't say look for this, the system that's claimed in this patent wouldn't know what to look for. It can't come up with something and say, oh, that looks out of the ordinary.

I will give your Honor another example. There is something in this patent called address spoofing. That is one

of the examples that is given of the type of anomaly you would be looking for. But it is neither unexpected, nor unusual, nor an aberration. In fact, the patent, if you would go to the next slide, please, take us to 15.

Address spoofing, your Honor is something you expect. The very reason you would use this patent in this system is because you are expecting to get attacks like this, and when you get them they look completely ordinary; there is nothing unusual or aberrational about them.

THE COURT: I will define it as an irregularity in the data. That's my tentative ruling, to be reexamined when we complete the whole process. OK? An anomaly does not have to be predetermined. It may arise in many different circumstances, but an anomaly connotes something that is irregular.

MR. NAGY: Thank you, your Honor.

THE COURT: An irregularity in the data.

The second term in controversy is "Network based intrusion detection techniques."

Intellectual Ventures suggests "Techniques for detection of intrusions by analysis of events which happen in a communications network to which the detecting device is attached."

JP Morgan suggests "Techniques for determining that a breach of computer security has occurred, is underway, or is

beginning based on analysis of network communications".

My suggestion is "Techniques for detecting by analyzing network communications whether unauthorized computers have entered a network."

"Techniques for detecting by analyzing network communications, whether unauthorized computers have entered a network."

Mr. Lim?

MR. LIM: I think that would be acceptable to us, your Honor.

THE COURT: I'm sorry?

MR. LIM: I think that would be acceptable.

THE COURT: Mr. Nagy?

MR. NAGY: Your Honor, it's largely acceptable except for the last part, and let me show you why.

THE COURT: Just tell me what you'd like.

MR. NAGY: Sure, your Honor. We would like for detection "that a breach of computer security has occurred, is underway, or is beginning".

And the reason, your Honor, is your construction as proposed would eliminate an intrusion attempt, whereas that's clearly contemplated by the specification. When you say "enter," that would exclude an attempt to enter, it would exclude reconnaissance activity, and so we need that broader language.

1 THE COURT: So we can say "have entered" or "are 2 seeking to enter". 3 MR. NAGY: Again, your Honor, still too limited. 4 would not include, for example, necessarily reconnaissance 5 activity where you are not trying to enter, you are just doing 6 reconnaissance. And that is right in the specification. 7 And this phrase here, your Honor, that we have "has occurred, is underway or is beginning" --8 9 THE COURT: What do you want? 10 MR. NAGY: We would like "A breach of computer 11 security has occurred, is underway, or is beginning". 12 MR. LIM: Your Honor, may I respond to that point? 13 THE COURT: Yes. 14 MR. LIM: Yes. Can I have slide number 7, please. 15 THE COURT: We are going off the record so that we can try to create interchangeability of files for easier display. 16 17 MR. LIM: Thank you, your Honor. THE COURT: Off the record. 18 19 (Recess) 20 May I proceed, your Honor? MR. LIM: 21 THE COURT: Go ahead. 22 MR. LIM: Your Honor, the point I was going to make is 23 that with respect to this particular term, I want to draw the 24 court's attention to independent claim number 26, dependent

claim 30, as well as 31. As you can see, your Honor, there are

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various additional limitations that's added by the dependent claim into the -- that we incorporated into the independent claim through the adding the independent claim limitations to the dependent claim limitations.

And with respect to anomaly, as can you see, anomaly comprises use of intrusion, intrusion attempts and reconnaissance activities. I think that's what counsel is getting at.

But If you look further down at the additional limitation of 31 includes the detection of data packets with respect to predetermined patterns. So, the dependent claims recites these various activities that are in question.

And I think the prior construction provided by your Honor sufficiently covers the term for network based intrusion detection techniques.

THE COURT: So, what do you suggest?

MR. LIM: It's precisely what your Honor read off to us the first time, your Honor.

THE COURT: It's very dangerous to tell me that you agree with me and elaborate, because I could be persuaded against you. If I say something you agree with, just say you agree. You don't need to support my reasoning. Thank you, Mr. Lim.

The definition will be the following: "Techniques for detecting by analyzing network communications, whether

unauthorized computers have entered or are seeking to enter a network, or are conducting reconnaissance activities..."

MR. NAGY: Thank you, your Honor.

THE COURT: The third controversial term is between the claim that says "plurality of hosts, servers and computer sites in the networked computer system".

Intellectual Ventures suggests interpretation of terms is not required. JP Morgan suggests "multiple hosts, servers and/or computer sites within a computer network". I will adopt JP Morgan's suggestion.

MR. LIM: Your Honor, may I be heard on that point?

THE COURT: Yes.

MR. LIM: Can I go to slide 14, please.

THE COURT: Yes.

MR. LIM: Your Honor, as recited in claim 1 and independent claim 26, the precise claim term in question "a plurality of hosts, servers and computer sites," the key word here is the claim language uses the word "and," and Chase is seeking to change the word "and" to an "or". And the reason that would not make sense —

THE COURT: It's in the disjunctive, "and" or "or".

MR. LIM: It is disjunctive, so it could be broad enough to cover a system where there are two or more computer hosts.

THE COURT: You want "hosts, servers and computer

sites" to be in the conjunctive. 1 2 MR. LIM: Right. 3 THE COURT: Any objection to that, Mr. Nagy? 4 MR. NAGY: I do, your Honor. There are a number of 5 objections. The first is it excludes one of the embodiments 6 that's in the specification itself. 7 Take us, if you would, to our presentation slide 36. THE COURT: Let me see the preview. 8 9 Let me ask, if it's "and" or "or," you've got breadth 10 more so than in the claim. Why should you object? 11 MR. LIM: I'm sorry, your Honor? 12 THE COURT: If you have "and" or "or," either 13 conjunctive or disjunctive, you've got breadth more so than 14 conjunctive alone. Why should you object? 15 MR. LIM: We respectfully submit that the claims are the narrow scope. In other words, the network based intrusion 16 17 techniques is talking about multiple hosts, multiple servers 18 and multiple computer sites. 19 THE COURT: I got it. 20 Mr. Nagy, go ahead. 21 MR. NAGY: Thank you, your Honor. 22 Slide 31 of our set, please. No, that's not slide 31. 23 That's slide 31. 24 Your Honor, let me start by showing you where we got

our construction. We took it right out of the file history;

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it's that underlying language there. 1 Now let me show your Honor why IV's insistence on 2 3 having an "and" before each one just wouldn't work. 4 Can we go to slide 36, please. 5 THE COURT: I have seen enough. It's going to be "and" or "or". 6 7 Thank you, your Honor. MR. NAGY: Is there an objection on using multiple rather than 8 9 plurality? 10 MR. LIM: No objection to that, your Honor. If I may 11 be heard on the and/or on one more point. 12 THE COURT: No, we have enough. 13 Point 4. "Pattern correlations across the plurality 14 of hosts, servers, and computer sites". 15 Intellectual Ventures suggests "recognition of anomaly signatures across the plurality of hosts, servers and computer 16 17 sites. 18 JP Morgan suggests "a pattern in the data from multiple hosts, servers, and/or computer sites. 19 20 I suggest "analysis of patterns of data across 21 multiple hosts, servers, and/or computer sites". 22 MR. NAGY: No objection on our end, your Honor. 23 MR. LIM: No objection, your Honor. 24 THE COURT: 5. Alerting the devices/alerts the

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devices.

Intellectual Ventures argues plain meaning. JP Morgan suggests "notifying the device, an associated firewall, or administrator".

Can I see the claim itself?

MR. NAGY: Your Honor, just one note there. It's claims 15 and 16 that specifically also include certain of the language. There are 33 claims in the patent, so looking at just claim 1 would not give you the whole picture.

THE COURT: All right. Look at claim 1 first and then 15 and 16. OK. Now let's look at 15 and 16.

MR. NAGY: And that's claim 9 for now. Can we get in 15 and 16?

THE COURT: 15 is up. And now 16.

I'm stopping on this slash between "alerting the devices" and "alerts the devices". I guess you're defining both those terms. Is that what it is?

MR. NAGY: Yes, your Honor. They happen to come up with alerting and alerts. That's all.

THE COURT: I don't think there needs to be any definition. I think the plain meaning is sufficient.

MR. NAGY: Your Honor, may I be heard briefly on that?

THE COURT: Yes.

MR. NAGY: Your Honor, when we first saw this -- and we can understand why you think the plain meaning might work -- but "alerts the devices" is really just not limited to devices.

I might alert your Honor, for example, to an emergency by picking up the phone and calling you, but if you are on trial, maybe that won't work. I might also alert you by calling your wife or calling your secretary. I still would be alerting you. And that's what this patent says.

And, your Honor, as you can see on our slide 47 -THE COURT: Before you show it, let me just see the
last slide that was shown.

MR. NAGY: You can see, your Honor, here --

THE COURT: Can you stop talking?

MR. NAGY: I'm sorry, Judge.

THE COURT: I will adopt JP Morgan's suggestion.

MR. NAGY: Thank you, your Honor.

MR. LIM: Your Honor, might I be heard on that point?

THE COURT: Yes.

MR. LIM: The slide you are looking at right now it's dependent claim 16.

Can I have the prior slide, please.

The prior slide illustrates the fact that the "alerting a firewall associated with a device" -- which is exactly what JP Morgan Chase proposed -- is in a dependent claim 15. So if their construction is adopted, that limitation of the dependent claim 15 is now read into the independent claim 9 through the construction of alerting device.

THE COURT: The focus is on alerting. The patent is

dealing with the automated feature of the function of alerting. 1 How the alert takes place, according to my understanding, is 2 3 not important to the patent construction. 4 MR. LIM: Well, what is being --5 THE COURT: Am I right? 6 MR. LIM: I'm sorry. 7 THE COURT: Am I right? You're not claiming who was alerted; you're claiming that there is a technique in sensing 8 9 the anomaly. 10 MR. LIM: That's correct. But, your Honor, the claim 11 makes clear what is being alerted does not include the 12 administrator in this particular claim limitation. 13 Please give me the next slide. 14 The next slide is another dependent claim off of 9, and there the further added limitation of 16 refers to an 15 administrator of the device. 16 17 THE COURT: I've heard enough. I'm accepting JP 18 Morgan's suggestion. 6. Sense data. 19 20 JP Morgan's suggestion is "detect data traffic or 21 audit trail records". 22 I don't think the term needs interpretation. 23 7. 24 Your Honor, may I be heard briefly on that? MR. NAGY: 25 THE COURT: Yes.

1 MR. NAGY: That may be fine by us, but we started off 2 here --3 THE COURT: So if it's fine, don't argue. 4 MR. NAGY: It may be, your Honor. 5 THE COURT: Why don't you think about it before you If it's all right, then let's move on. We don't need 6 7 to have contentions about every one. 8 MR. NAGY: On second thought, your Honor, I think it's 9 fine. 10 THE COURT: Thank you. Then there are nine terms. 11 There is no 7 here. The proposal has a box for 7 but there is 12 nothing there. 13 So, there are six points of construction that are in 14 contention, and I resolved those six. 15 Now we move on to constructions resolved by agreement. 16 I accept all those. 17 That finishes the 084 patent. We are now on the 409 18 Here is how I introduce the subject: patent. 19 "This patent is a method for limiting access to 20 sensitive data. Sensitive data is encrypted and then sent with rules limiting who can access the data. (The rules can be sent 21 22 either together with the encryption or separate." Different people may be given different access to data for different 23 24 purposes.

"Plaintiffs and defendants disagree about whether the

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patent involves encryption. Plaintiffs argue that "protected data" is encrypted, "unprotected data" is decrypted, and the patent covers what happens to the data after it has been decrypted. Defendants however contends that the data remains encrypted and the patent concerns a method for decrypting the data every time it is accessed."

Comments?

MR. ROBERTS: So, on behalf of the defendants, your Honor, that's not fully right. First, I think we have agreement that the patent involves encrypting and decrypting data, and that the protected data is encrypted and the unprotected data is decrypted. And I think we actually have agreement between the plaintiffs and the defendants on that subject.

THE COURT: Is that true, Mr. Lim or Mr. Alberti?

MR. ALBERTI: Yes, your Honor, it is true that we both agree that when we talk about protected and unprotected we are indeed talking about encrypted and unencrypted or decrypted data.

THE COURT: All right. So, there is no contention on that issue.

So I should say that "the patent provides that protected data is encrypted and that unprotected data is decrypted," and stop there.

MR. ROBERTS: I would say that unprotected data is

unencrypted because it may be, your Honor, that unprotected 1 2 data has not yet been encrypted. 3 THE COURT: I think you're right, I think unencrypted 4 is better. 5 Let me deal with the disputes. 6 First is "openly distributed data". 7 Intellectual Ventures suggests "data transmitted over an insecure communication channel". 8 9 JP Morgan: "Data transmitted using mechanisms and 10 media which may be subject to access and copying by third 11 parties". I would adopt Intellectual Ventures'. 12 MR. ROBERTS: Thank you, your Honor. If I may --13 THE COURT: Sorry. Go ahead, Mr. Roberts. 14 MR. ROBERTS: Yes, I was going to comment on that. 15 If I could have our slide 6, please. 16 Slide 6, your Honor, is a passage that everybody looks 17 at. 18 THE COURT: You are Mr. Roberts, right? 19 MR. ROBERTS: Yes, your Honor. It says information

MR. ROBERTS: Yes, your Honor. It says information can be transmitted openly, that is, using mechanisms and media that are subject to access and copying, in other words, communication channel may be insecure.

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In our view what the patent requires when it talks about openly distributing data is sending it out into the world openly, without regard to the security status of the method of

communication. It's broadcasting it.

You don't need to know for a fact that the communication channel over which you are sending the data is insecure; you are simply distributing it openly to all comers. Some of those people may be secure; some of those people may be insecure.

THE COURT: Let's say I take out "insecure". "Openly accessible communications channel".

MR. ROBERTS: What we had proposed as a compromise was to combine our two language, your Honor. "Data transmitted over one or more communication channels which may be insecure, (i.e., transmitted using mechanisms and media subject to access and copying by third parties)".

And that literally takes the language which is in slide 6 directly. It reverses the order, but it's literally that same language.

THE COURT: I will adopt the following: "Data transmitted over an openly accessible communications channel".

MR. ALBERTI: We agree, your Honor.

THE COURT: 2. Rules defining access rights.

Intellectual Ventures suggests "rules corresponding to data for controlling access to the data".

JP Morgan: "Permissions governing access".

I suggest: "Rules governing who has permission to access the data". Simplify it. "Rules governing who may

access data".

MR. ALBERTI: Your Honor, I would suggest a slight modification of that, and I would suggest "rules governing access to the data".

The reason I say that is because not all rules relate to a particular individual. There are rules that say, for example, you can only access the data for a certain given period of time, or you can only access the data under certain conditions irregardless of who the actual person is.

THE COURT: How about this: "rules governing who, how and when access data".

MR. ROBERTS: Actually, if your Honor is attracted to "rules" rather than "permissions," I would be willing to agree to "rules governing access to the data," which is what opposing counsel proposed. We had thought that --

THE COURT: OK, let me get it then. "Rules governing" --

MR. ROBERTS: -- "access to the data".

MR. ALBERTI: We would agree with that, your Honor.

THE COURT: Adopted.

3. At least one low level effectively defines a virtual machine.

Intellectual Ventures suggests that "the parties agree that 'at least one low level' refers to 'a level in a computer system below a high-level application environment'".

JP Morgan suggests the agreement as follows: That "at 1 least one low level refers to a level in a computer system 2 3 below a high-level application environment". 4 MR. ROBERTS: Your Honor, may I clarify this? 5 THE COURT: Yes. MR. ROBERTS: So the parties agree about what "at 6 7 least one low level is, " i.e., a low level is a level below the application environment. 8 9 THE COURT: Here is what I would like to do, which I 10 think consolidates both and simplifies it: "a level within a 11 computer system below a high-level application environment". MR. ALBERTI: Your Honor, the issue that we take with 12 13 that is it never addresses what an actual virtual machine is. 14 That construction does address, and the parties agree, that at least one low level is a level in a computer system 15 below a high-level application environment. However, a virtual 16 machine has a meaning that's one of ordinary skill in the art 17 18 would understand. It's basically a software-based implementation of a computer, and that is not reflected 19 20 within --21 THE COURT: No, it's not, you're right. 22 MR. ROBERTS: And, your Honor --23 THE COURT: Let's stop a minute. When defining these 24 terms I have to imagine how a jury is going to understand this

at the end of the case, if we have to go that way.

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fine definition, but a jury will not understand it, so let's get something simpler for virtual machine.

I think we are agreed on the first part, "a level within a computer system below a high-level application environment". Let's do the second part.

MR. ROBERTS: Can we have slide 24?

Your Honor, what slide 24 says -- and this is from the specification -- it says "Typical computer systems are implemented at various levels, each level effectively defining a different virtual machine."

What we think that means is that in terms of this patent, each level defines, constitutes, sets the metes and bounds of a different virtual machine. That's what the specification says literally.

So, we think that when it says "at least one low level effectively defining a virtual machine," what's important to tell the jury is this is the thing that defines the virtual machine. And the parties agree on what that thing is, and that is why we have proposed our construction. We don't think you need a separate construction for virtual machine.

THE COURT: What is a virtual machine?

MR. ROBERTS: In this patent a virtual machine is synonymous with a level within the stack of the computer system operating system. It's each level shown in the drawing on the right-hand side of the figure on your screen.

THE COURT: I still don't understand what a virtual machine is.

MR. ROBERTS: So, your Honor, if you would like the parties to take the term virtual machine and come become and propose a separate construction of that term, I'd be willing to do that, and we could submit it to you on the briefing.

THE COURT: Why don't the two of you talk together right now. We will go off the record.

MR. ROBERTS: OK.

(Pause)

MR. ROBERTS: We have reached an agreement that a virtual machine separately can be defined as a software process that emulates another process or computer.

THE COURT: And as I would understand, an example of that is if I have an Apple product and it's configured to run Microsoft, it then appears to be a Microsoft product.

MR. ALBERTI: That's a perfect example, actually, yes.

THE COURT: OK. So the definition will be "a level within a computer system below a high-level application environment. A virtual machine is a software process that emulates another software process or computer".

The next claim term is "means for outputting".

Intellectual Ventures suggests "outputting the images represented by the accessed data or outputting the output signal represented by the accessed data".

JP Morgan suggests "outputting the images represented by the accessed data or outputting the output signal represented by the accessed data".

MR. ROBERTS: Your Honor, what you just read is -- the parties agree on the function of this term. It's a mean plus function term, and the parties agree on the function. The disagreement is on the structure. They say the structure is a display, monitor or --

THE COURT: Well, I think the JP Morgan is a little easier to understand, so I will adopt that. Then we can focus on the structure.

MR. ROBERTS: Thank you, your Honor. The structure, they say the structure is a display, monitor or printer. We say it is the IO controller. I will just present my brief argument on it.

If we could have slide 32, please.

This is the drawing given in the specification that both parties rely on. The line in red, the line 167 defines the boundary for the components of the access mechanism 114. The thing that outputs the data from that boundary is the IO controller shown in yellow. The devices shown to the left — if we can see slide 36, please — those devices are peripheral devices; they are external devices to the claimed invention. The claims call for a device which outputs data, that's the IO controller, and that data goes to printers, monitors and other

items which then can print or output it in different ways. So, the means for outputting from the device that is the subject of the invention is the IO controller itself.

To be fair, there are some embodiments where the claims call for the invention to be embodied within a printer or monitor, but even then the claims cannot be construed as they propose.

If we could have, for example, slide 38.

THE COURT: I am getting too much information, and I am not focusing. Go back one slide, please.

MR. ROBERTS: If you go to slide 36, your Honor, what you will see is --

THE COURT: No, go back one more.

MR. ROBERTS: One more. 32, please.

THE COURT: So, number 165 you say is the controller.

MR. ROBERTS: Yes, 165 is the IO controller. And OI stands for input/output.

THE COURT: The input/output controller.

MR. ROBERTS: And it is therefore the means for outputting; it is the thing that controls outputting, as its name suggests.

THE COURT: So the information comes from the left to the right?

MR. ROBERTS: The information in this drawing comes from the right, it comes from the access mechanism. It is

output via 165, and it flows to the peripheral devices on the left.

THE COURT: So I would think that box 165 would be both input and output.

MR. ROBERTS: It is. I am not disputing that it also would be -- if there were a means for inputting -- that it would probably be that corresponding structure as well. It may do other things. But it is clearly the mechanism pointed to in the specification for outputting information from the access mechanism 114 surrounded by line 167.

THE COURT: All right. So I think your suggestion would translate in function generating an output signal from the access data.

 $$\operatorname{MR.}$$ ROBERTS: Well, the parties have agreed on the function, your Honor.

THE COURT: Yes, I see that. So I should just accept that.

MR. ROBERTS: We would appreciate it.

THE COURT: All right. And for structure, you say there is no corresponding structure?

MR. ROBERTS: We say that the corresponding structure for the means for outputting is the IO controller, because that is what outputs the data from the device.

THE COURT: And what does Intellectual Ventures say?

MR. ALBERTI: Your Honor, we say you have to key in on

what the agreed function is.

THE COURT: What do say?

MR. ALBERTI: We say it's the display monitor or printer, because the function is outputting images. An IO controller doesn't output images. A monitor -- what I am looking at right now -- a display certainly outputs an image. If an image is on paper, a printer will certainly output an image. An IO controller simply does not output an image. And what is discussed in the patent, the things that actually output images are printers and displays.

THE COURT: Well, if the function is generating the output signal from the access data --

MR. ROBERTS: You are looking at a different term, your Honor. There are two: There is a means for outputting and a means for generating.

THE COURT: I'm sorry. Excuse me.

The means for generating, as I understand this diagram -- and the slide is number --

MR. NAGY: -- 37, your Honor. And it's figure 8 of the patent.

THE COURT: -- is that the different boxes on the right-hand side stimulate potentially a message that passes through the controller, and it's the controller that is the device that generates the informational signal that passes on to the information on the left, of which one is a printer. The

printer is reactive. The printer will print that which the controller instructs it to print.

So, if we are talking about outputting, which is the means, the appropriate device is the controller and not the display, monitor or printer. I would understand the display, monitor or printer to implement a command generated by the controller.

MR. ROBERTS: Your Honor, that cannot be right according to the claim language.

Can I please have slide 38.

THE COURT: I can't have both of you standing? Who has the floor?

MR. ROBERTS: Since you are going in their direction, if I can speak briefly, your Honor.

This is the claim. It calls for a device for outputting images. If that device is the printer, then the means for outputting cannot be the printer, because the means for --

THE COURT: I just said that. I said it's a controller. I said that the printer or the display is reactive to the information generated by the controller, so the device is the controller. That's what you're suggestion.

MR. ROBERTS: That's correct. But the means for generating cannot be that controller. The generating means are the other boxes to the right.

THE COURT: Well, they pass through the controller, and the controller ${\mathord{\text{--}}}$

MR. ROBERTS: Correct.

THE COURT: So that's why you are using the word outputting. So, it's my mistake, and I created a confusion by using the word generating. "Outputting the images represented by the access data or outputting the output signal represented by the access data," that's the definition that's been agreed to. I accept it. And the structure is the controller.

MR. ROBERTS: Thank you, your Honor.

MR. ALBERTI: Your Honor, can we be heard just really briefly on that?

THE COURT: Yes.

MR. ALBERTI: With respect to images --

If we can take a look at our slide number 28.

In this passage -- and we are talking about column 26, starting around line 30 -- it talks about what actually is output with respect to images. And again when we are talking about the output of images we are talking about output -- for example, output might contain a header/footer on each page indicating the identity of the authorized user. A watermark might be printed in the background, or other identifying material might be placed on each image.

So, it's talking in this context when you output an image under this patent the actual thing that's doing this

outputting function and controlling how that output happens is 1 in fact the display, or the printer, at least in this example. 2 3 So, while it may be true that the IO controller 4 outputs some signals, we don't dispute that. At least --5 THE COURT: I can understand that without a display or 6 some other form of register or printer that displays that which 7 has been output, the structure is incomplete. So, the structure could be not only the controller but the display, 8 9 monitor or printer as well. I can adopt both. 10 MR. ALBERTI: We wouldn't have an objection to 11 adopting both, your Honor. 12 THE COURT: So, should I say an input/output 13 controller and associated display monitor or printer? 14 MR. ALBERTI: That's fine with us. 15 MR. ROBERTS: We can accept that. THE COURT: We are on number 5. It would be the same 16 17 thing, wouldn't it, folks? 18 MR. ROBERTS: No. 19 THE COURT: The same structure? 20 MR. ROBERTS: No, it would not, your Honor. 21 So, first of all, the claims call for these things as 22 two different limitations. There is two different claims. One 23 has means for generating; one has means for outputting. 24 uses different words. They should be different things.

THE COURT: So, what is the generator?

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MR. ROBERTS: The problem is that it doesn't tell you. If you look at figure 35, or slide 35, it could be the thing that generates the signal that passes out through the IO mechanism could be the processing unit; it could be the nonvolatile memory or the encryption hardware. It could be a variety of things that generate the signal that then pass out via the IO controller. And it simply doesn't say which one of those structures it is.

THE COURT: It could be all of it, couldn't it?

MR. ROBERTS: It could be all of them, that's absolutely right. So our point about the lack corresponding structure is that they haven't specified which one of these boxes performs --

THE COURT: But it's implied, I think.

MR. ROBERTS: I think it's implied that it's something, and the question is have they specifically called out a structure as performing the function.

THE COURT: Well, on this diagram there is a single line that passes into the box number 165.

MR. ROBERTS: That's right.

THE COURT: Can I just have a minute? And that line shows leads from every one of the boxes on the right-hand side, from which I would infer that the functions identified by each and all the boxes, together with the controller, is the generating impulse.

MR. ROBERTS: The problem with that, your Honor --1 THE COURT: Let me see first if I got it right 2 3 according to Intellectual Ventures. 4 MR. ALBERTI: Your Honor, for this term we really believe -- and if you take a look --5 6 THE COURT: Just tell me if my concept is correct. 7 MR. ALBERTI: It should be limited to the IO controller. 8 9 THE COURT: No, I don't believe so, because a 10 controller or a freostat is a governing body that limits 11 impulses coming into it in some fashion. So that which is 12 generated is not the controller; it's the origination of the 13 impulse together with the controller. 14 MR. ALBERTI: So if your Honor would restate what your 15 proposed structure was. THE COURT: It's all the devices on the right-hand 16 17 side, right of box 165, everything that goes through 165. 18 MR. ALBERTI: I'd say with the exception of the disk and the display, which I don't think have anything to do --19 20 they're not generating the signals. I think I'm fine with 21 that. 22 THE COURT: The display and the disk and the printer are all to the left of box 165. 23 24 MR. ALBERTI: There is one display, 164, which is in 25 the box 114, and I would suggest that the display is not

creating or generating the signal itself.

THE COURT: I don't know what function it has, nor do

I know what function the disk has, except to bring in

information from somewhere else, assuming the box for the

display is incomplete.

I can't tell you that I am familiar with the function in each of these boxes that feeds into the controller.

MR. ALBERTI: At a minimum, your Honor, we would agree that the processing unit and the memory would certainly be devices that are used in any typical computer system to generate signals which would subsequently be outputs by the IO controller. If your Honor would like to include those elements, we certainly would not object to that.

THE COURT: Well, you have agreed on the function, so I should accept it. And as to the structure, I can't agree with either of you, because it's not the controller, and there is a corresponding structure, but it's not defined.

MR. ALBERTI: And, your Honor, again, I think you're right, if you want to include some of these boxes, at least the processing unit, and the volatile memory, and together with the IO controller, we would be fine with that.

MR. ROBERTS: May I respond, your Honor, briefly?

THE COURT: Just a minute.

How about this: One or more devices inputting signals into the IO controller and the IO controller.

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MR. ROBERTS: Fine with us.
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               MR. ALBERTI: We're fine with that, your Honor.
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 3
               THE COURT: I'm getting to understand this.
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               And there are next nine agreements on terms, which I
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      adopt. I'm sorry, there are 13.
6
               Sorry. Going to number 9 of the agreement and the
 7
      structure. Should it be "a display monitor" rather than just
      "a display"?
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               MR. ALBERTI: If you want to include "monitor," we're
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      fine with that, your Honor.
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               THE COURT: Because display is a verb. We need a
12
      noun. A display monitor.
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               Number 10. I think "permissions" is better than
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      "rights".
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               MR. ROBERTS: That's fine with us, your Honor.
               THE COURT: Number 11?
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               MR. ALBERTI: Your Honor, could we be heard on that
18
      one?
               THE COURT: On 10?
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               MR. ALBERTI: Yes.
               THE COURT: You like rights better?
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22
               MR. ALBERTI: I like rights better.
23
               THE COURT: It's going to be permissions.
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               MR. ALBERTI: That's fine.
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               THE COURT: Rights have a more mysterious connotation
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to a jury. They understand permission. When they start with
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      rights, they think about law, and I don't think that's what we
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 3
      want to suggest.
 4
               Similarly, in 11 I will take "permissions" over
5
      "rules".
 6
               MR. ALBERTI: Well, your Honor, specifically with
 7
      respect to this one, because we used "rules" in the earlier
      construction --
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9
               THE COURT: Then you're right, then it should be
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      "rules".
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               MR. ALBERTI: Yes.
               THE COURT: And 12, I prefer the grammar "unencrypted
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13
      form of the protected portions of the data".
14
               Well, that completes us through 11. Now we are ready
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      for the 574 patent.
               MR. NAGY: If I can be heard briefly on that.
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17
               THE COURT: Which?
               MR. NAGY: On the 574.
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19
               THE COURT: I was going to suggest a break.
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               MR. NAGY: Yes, your Honor. And in fact --
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               THE COURT: So, you will be heard after the break.
22
               MR. NAGY: Oh, of course, your Honor. Sure.
23
               (Recess)
24
               THE COURT: OK, Mr. Nagy was going to tell us
25
      something on the 574 patent.
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MR. NAGY: Actually, your Honor, we resolved it.

THE COURT: All right. Let me tell you how I was going to describe the patent.

"The patent covers a method of using trusted entities to ensure that public or private keys are reliable and have not been faked. Public or private key encryption (which is covered by a separate patent) is used to encrypt data. A public key matches a private key, and something encrypted by a public key can be decrypted only by the private key and vice versa. This patent makes sure that keys aren't faked by using a trusted entity, which holds keys and issues certificates, to vouch for keys.

"To transfer information from A to B: Computer A which has private key A, sends a message to trusted entity; the trusted entity then issues a certificate; the certificate is encrypted with the trusted entity's private key; computers A and B can verify the certificate using the trusted entity's public key. With the certificate, the trusted entity gives computer A, computer B's public key. Computer B can then decrypt the data using its private key and verify that the information comes from a trusted source by checking the certificate. If computers A and B trust different entities, then trusted entities can form a chain of verification, as long as there is a common point of trust."

Having read what I wrote, I find it dense, and it will

need more work to explain this to the jury. I think it's sufficient for our purposes here, but it needs more work to explain it to the jury, and that doesn't need to be today's session.

All right. So, we have --

MR. ROBERTS: Your Honor --

THE COURT: -- 17 terms in dispute.

MR. ROBERTS: If you wanted to distribute that to opposing counsel and myself, we would be very happy to try to work on it together to see if we can provide you with some unified comments on it.

THE COURT: I accept that offer. Thank you.

I will just use that as a very brief point of comment. It's my very strong view that jurors are up to understanding the most complicated points of litigation including patents, and that the problems that we all face are due to inadequacies of lawyers, not to inadequacies of jurors.

It's the job of a lawyer to explain things in a way that a layman can understand. I don't include the present group of lawyers in that generalized description. But it's my experience that whenever juries don't understand, whenever judges don't understand, it's because the burden of explanation has not been satisfied.

So, as the person who instructs the jury, it is my job to have instructions that can be clearly understood and

applied, and I would be grateful for your help in doing that. 1 2 All right. Did you want to say something more, 3 Mr. Nagy? 4 MR. NAGY: No, your Honor. 5 THE COURT: The first term in dispute is certification 6 infrastructure. 7 Intellectual Ventures says it's not required to 8 explain this. 9 JP Morgan suggests the following: "A set of processes 10 for performing certification. I think that's a good 11 interpretation, neutral and clear. 12 MR. ZOLOTOREV: Your Honor, may we be heard on that? 13 THE COURT: Of course. 14 MR. ZOLOTOREV: This is Jake Zolotorev. 15 If we can go to slide 11 in our presentation. Your Honor, I'd like to make two points with respect 16 17 to this claim term and JP Morgan's proposed construction of it. The first is that it takes what is clear and plain claim 18 language that we can see on the left-hand side and makes it 19 20 confusing instead of explaining it. THE COURT: "Certification infrastructure" is too 21 22 dense a term, but I think you're making a good suggestion by 23 looking at the larger term, and I think I would say "arranged 24 in a set of processes by which verification is performed" -- or

"verification is achieved". So, I would define it as a set of

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processes by which verification is achieved. 1 2 MR. ZOLOTOREV: Your Honor, if I may address that. 3 THE COURT: Go ahead. 4 MR. ZOLOTOREV: The problem that we see here is 5 limiting the term infrastructure, which has a plain meaning 6 that is not limited to just processes. Of course, when we 7 think about infrastructure we think about hardware, software. If it's transportation infrastructure, it's not just an act of 8 9 driving, it's also the roads and the cars, etc., etc. 10 THE COURT: So, would you like "a set of processes and associated devices"? 11 12 MR. ZOLOTOREV: I think that would be a fairer 13 characterization of what infrastructure is. 14 MR. ROBERTS: Your Honor, they are very clear that it is not directed to a set of hardware but is instead a set of 15 16 processes. 17 If I could have slide 6, please. 18 THE COURT: Leave that first slide up for a moment, 19 please. 20 System can comprehend both. 21 MR. ROBERTS: Yes. But, your Honor, it says, "in a 22 certification system for secure communications containing 23 computer processes arranged in an infrastructure". It says

right there that what we are talking about is a set of

processes arranged in an infrastructure.

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THE COURT: That was a redundancy, so let's work on that. "In a certification system for secure communications containing processes and devices by which verification is achieved".

MR. ROBERTS: Your Honor, again the devices on which these processes run are not a key component of what is claimed.

Indeed, if we could have slide 8, please.

THE COURT: I don't know what's key and what's not key at this point. I'm intent on having these patent claims understood by me and by the jury and have a common language for both of us. I'm looking for inclusive language. I'm not looking to give any side an advantage by this process.

MR. ROBERTS: Yes. And, your Honor, they are the ones who are trying to read in hardware where it is very clear that what is claimed is independent of the hardware.

This is from the specification. It's talking about a set of functions, and those functions will act independently of the type of hardware platform used.

If I could have slide 6, please.

Slide 6 talks about a set of processes which collectively form the certification system, functions, and infrastructure of the invention. The invention is directed to a set of processes that are independent of any particular hardware on which they may rely.

THE COURT: Infrastructure can comprehend hardware as

1 | well as software.

MR. ROBERTS: Infrastructure can. In this case they have said we are claiming a set of infrastructure composed of software processes.

THE COURT: I don't go along with you. There has to be devices in this.

MR. ROBERTS: Yes. But the question is are those pieces of hardware part of the certification infrastructure, or are they simply the devices upon which that infrastructure is operated?

Software doesn't do anything without hardware, so saying that it's a set of software processes doesn't exclude or weed out the existence of hardware.

THE COURT: I think it does, so I'm going to one way or another get devices in here.

I'm asked to define certification infrastructure, and it will be defined as follows: "A set of processes and associated devices by which verification is achieved".

MR. ZOLOTOREV: That is fine, your Honor.

MR. ROBERTS: Your Honor, the other problem with that is by which there is verification, which is certification includes more than merely verification. So, for example, claim 18 which is asserted here --

THE COURT: I think you're right.

MR. ROBERTS: -- talks about registration.

1 THE COURT: So should we say "by which certification is achieved"? 2 3 MR. ROBERTS: Yes. 4 THE COURT: I think Intellectual Ventures can go along 5 with that, too. 6 MR. ZOLOTOREV: That is acceptable to us, your Honor. 7 THE COURT: Next claim is public key. Intellectual Ventures feels that the words are self 8 9 descriptive. I disagree. 10 JP Morgan suggests: "A key that can be used to 11 encrypt data, or to decrypt data that has been encrypted by a 12 corresponding private key". 13 I will accept that. 14 MR. ZOLOTOREV: Your Honor, may we be heard? 15 THE COURT: Yes. MR. ZOLOTOREV: I think after the briefing JP Morgan 16 17 suggested an alternative construction to what is here -- and 18 they can correct me if I got this wrong -- but it replaces the "or" with an "and". So, instead of reading "a key that can be 19 20 used to encrypt data or decrypt data," it's "a key that can be 21 used to encrypt data and ..." 22 THE COURT: I will accept that. 23 MR. ZOLOTOREV: And we will accept it with an "and," 24 your Honor. 25 THE COURT: Is there only one comma? The key that can

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be used to encrypt data, comma? So everything else in that
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      definition qualifies decrypt data?
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               MR. ROBERTS: Yes.
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               THE COURT: Right, Mr. Zolotorev?
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               MR. ZOLOTOREV: Yes, in this construction, yes, your
6
     Honor.
 7
               THE COURT: OK. Number 3. Public key certificate.
               JP Morgan suggests: "A data structure binding a
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9
      user's identity to a public key".
               I would suggest the following: "Information vouching
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11
      for the trustworthiness of a public key, including by
12
      indicating that the public key was issued by the person who
13
      claims to have issued it".
               MR. ROBERTS: Can you read that again, your Honor?
14
               THE COURT: "Information vouching for the
15
      trustworthiness of a public key, including by indicating that
16
17
      the public key was issued by the person who claims to have
      issued it".
18
19
               I need to take a few minutes. Sit in your places.
20
               MR. ROBERTS: There are two small comments.
21
               THE COURT: Mr. Roberts, I need to take a couple
22
     minutes.
23
               MR. ROBERTS: I apologize.
24
               (Recess)
25
               THE COURT: We were up to claim 4? Mr. Roberts.
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MR. ROBERTS: Your Honor had proposed: "Information
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      vouching for a public key including by indicating" --
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               THE COURT: For the trustworthiness of a public key.
               MR. ROBERTS: "Vouching for the trustworthiness" --
 4
 5
               THE COURT: -- "of a public key, including by
6
      indicating that the public key was issued by the person who
 7
      claims to have issued it".
               MR. ROBERTS: So, your Honor, I have only two comments
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9
      on that. The first is that it can be issued not merely by a
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     person but by a computer process.
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               So, for example, you might have a computer process
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      that is issuing the key rather than a person. And I think,
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      therefore, it should say "was issued by the person or process
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      who claims to have issued it". So, for example, a website
15
     might issue a public key. It need not be issued by a person.
               And the other --
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17
               THE COURT: Why don't we say "by indicating that the
      public key was issued" --
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               MR. ROBERTS: -- "by the entity"?
19
20
               THE COURT: -- "by the appropriate issuer".
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               MR. ROBERTS: Very good. Or you could just say "by
22
      the purported issuer".
23
               And the other comment I had was --
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               THE COURT: I would rather use "appropriate" because
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      the jury might think "purported" is sinister.
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MR. ROBERTS: OK. And the other one you said is "information". I don't have an objection to "information," but it does seem to me that it might be better to say "a data structure," because the information is somewhat — if it's something in a book, that's not a certificate. A certificate is in fact an embodiment of that information in a form that can be sent and received.

THE COURT: How about "a certificate vouching for the trustworthiness"?

MR. ZOLOTOREV: Your Honor, we would agree with that.

MR. ROBERTS: The problem with certificate, just repeating the word, is it doesn't give the jury any context for what it is.

THE COURT: It does so.

MR. ROBERTS: OK.

THE COURT: I think they all know what a certificate is. The question is what kind of certificate is it. What is a public key certificate? A public key certificate is a certificate that vouches for the trustworthiness, etc.

MR. ZOLOTOREV: Your Honor, may we be heard?

THE COURT: Yes.

MR. ZOLOTOREV: We agree with leaving in the certificate as part of the construction. It's really the latter part of the construction that we think may need a little fine tuning. If we can go to slide --

THE COURT: Let me do this. I understand your point, Mr. Zolotorev. "By indicating that the public key was issued by the issuer who was supposed to have issued it".

 $$\operatorname{MR}.$$ ZOLOTOREV: I think that would be agreeable to us, your Honor.

THE COURT: I will read the whole thing. "A certificate that vouches for the trustworthiness of a public key, including by indicating that the public key was issued by the issuer who was supposed to have issued it".

Now, I want to know, gentlemen, why can't we stop at public key? "A certificate that vouches for the trustworthiness of a public key"?

MR. ROBERTS: Because, your Honor, you have to know who issued it. It's not merely that the key itself is a genuine public key but that it belongs to you. Because it is the quality of being the public key that corresponds to your private key uniquely that allows us to verify the authenticity of the message.

THE COURT: All right. "A certificate that vouches for the trustworthiness of a public key and the issuer who was supposed to have issued that public key".

MR. ZOLOTOREV: Your Honor, I think again in the interest of fine tuning the construction, the certificate is not really vouching for the trustworthiness of the entity that issued it; it's just vouching for the fact that the entity did

1 in fact issue the key.

THE COURT: All right, we'll leave it the way it was. Thank you, folks.

Number 4. Data items required for a public key certificate.

I think the term needs some definition.

JP Morgan suggests: "A public key and the user's identity".

What claim number is this?

MR. ZOLOTOREV: Your Honor, this is for claim number 18.

THE COURT: Claim number 18.

MR. ROBERTS: Can you put up slide 19, which has the claim for the court.

MR. NAGY: It's now on the screen, your Honor.

THE COURT: The problem is not the definitions of each term but the whole, which is repetitive and solipsistic, meaning it's turning on itself. So it reads "requesting a computer process". That means that somebody is asking for a verification. "Generating a data structure," which really means responding. "In a response that" --

MR. ROBERTS: Your Honor, perhaps it would be helpful just in explaining the structure of claim 18. What claim 18 is calling for -- I think opposing counsel would agree with me -- is that this is the process by which certificates are issued,

not the process by which certificates are used for verification.

THE COURT: I understand that.

MR. ROBERTS: So, what we are talking about here in step A is the computer that is requesting a certificate -- meaning I'm requesting a new certificate for myself -- it fills out an application, and the data items required for a public key certificate are the items that are required for the issuing computer to issue a certificate, a new certificate or a replacement certificate. So, that's the context in which this is coming up.

THE COURT: You know, the introductory paragraph is clear, but A and B defy understanding. And we are not helping the process by breaking it down into its components; we are only making it worse.

I don't think there is controversy here. I would ask both of you to see if you can reword A and B so an ordinary person can understand it.

MR. ROBERTS: Would you like us to try to do that now, or do it offline and come back to you?

THE COURT: How about doing it at lunchtime?

MR. ROBERTS: Thank you.

THE COURT: And do the term as a whole; don't break it down.

Subparagraph B says before you issue the certificate

you need to verify who is asking for it. It doesn't tell you how to do that, does it?

MR. ROBERTS: No, your Honor, it doesn't say how to do it. All we're saying is that what you are doing is you are verifying who it's from, and that is necessary because the purpose of the certificate is to, as we've said, bind the user to a particular public key.

THE COURT: That's right. But, Mr. Zolotorev, is it part of the patent to find out the authenticity of who is asking?

MR. ZOLOTOREV: Your Honor, if I may --

THE COURT: Yes, you may. I'm asking you. You must.

MR. ZOLOTOREV: The claim talks about verifying the authenticity of said request. The claim is not specific to verifying the identity of who the request is from, which is part of the reason that we were objecting to the original construction that was being proposed by JP Morgan.

THE COURT: Well, part of authenticity is identity.

MR. ZOLOTOREV: It certainly is part of it, but authenticity is broader than that. And if we look at the specification of the patent, when it talks about what it means to be authentic --

THE COURT: It's two things. It's identity and authorization. You need to know who is asking.

MR. ZOLOTOREV: But, your Honor, even more

E357INT1 fundamental, your Honor, you need to know that the message hasn't been tampered with. Authentic means untampered. You also may want to know who is asking, but you need to know that there has been no tampering. If you read the specification, that's where the specification begins and says we deal with the fact that messages and keys themselves can be tampered with. (Continued on next page)

MR. ROBERTS: If it's been tampered with, it isn't from the person it purports to be from.

THE COURT: It can be. You could have an proper identity of source, but corruption on delay. Let's say, for example, an authorized request or requests, but the silent partner doesn't know.

MR. ROBERTS: If we could put up slide 25. That is the graphic that the vendors used to describe the process and the verifying the authenticity comes in box 910. And then after you've authenticated.

THE COURT: Let me find box 910. That's a function. It doesn't describe what you do. As I asked Mr. Zolotorev before, is the authentication procedure part of the patent.

MR. ZOLOTOREV: If we could put up claim 18.

THE COURT: The answer first is yes or no.

MR. ZOLOTOREV: Your Honor, I just want to be clear that we are talking about that the different claims talk about different aspects of the process. So I would like us to be focused on the invention upon a claim-by-claim basis as opposed to me trying to make broad statements that could cover claims and embodiments that are not at issue. Here, in claim 18, the invention is — part of step B, without a doubt, is verifying the authenticity of said request. Now, can that involve verifying who it's from? Sure.

As your Honor has just spoken about, there is even a

more fundamental aspect of what verifying authenticity is, and that is just making sure that in this case the request, the request for the certificate, which is what we are talking about in A, in B we are now going to verify the authenticity of that request, make sure it's not tampered with.

I've learned that when you ask a question that can be answered yes or no and the respondent answers neither yes or no, but starts to give me an explanation, I get to wonder if there is a yes or no answer. And if there is no yes or no answer, I get to wonder if there is an obfuscation here that hides the fact that there is no claim.

MR. ZOLOTOREV: Your Honor, I believe there is a clear answer and that is the language of the claim.

THE COURT: The answer is yes or no.

MR. ZOLOTOREV: Verifying identity is not a necessary step to claim 18. Verifying authenticity is.

THE COURT: It's not part of the patent. It's not part of the claim.

MR. ZOLOTOREV: It is included in the claim, but that's not all --

THE COURT: You verified, but it doesn't tell you how to verify. We talked about an anomaly before, but we don't have it here. With respect to verify, an anomaly detects that some strange element has come in that you can't identify and

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would raise question which may go to the authenticity of the impulse. But here there is nothing. Got it.

MR. ROBERTS: Your Honor, if they are concerned about tampering --

THE COURT: This is the very issue of Nautilus and Biogen, the case on which I was reversed and which the Supreme Court granted certiorari. That invention dealt with the spacing. You are probably familiar with the case more than I am now. Nautilus claimed an invention in the spacing of sensors in gym equipment. You go on a bike, for example, or a treadmill and you want to know if your heartbeat has gone to the appropriate level and not beyond. So you need a sensor. And the sensors are in the handlebars. They could be someplace else, but typically in the handlebars. But there is also a lot of noise that's created by the motions of muscles and contractions and expansion of muscles. So the trick is to distinguish between the noise and the heartbeat. And Nautilus claimed to have done that by the way the sensors for the heartbeat were spaced. But they didn't describe what the spacing was.

And I held that the patent was void for in definiteness. The Court of Appeals reversed. It held that trial and error -- I'm simplifying -- that trial and error by someone skilled in the trade would have told them what the spacing was or could be, and it was remanded back to me. And

before any proceedings could follow from that, the Supreme Court granted a writ of certiorari. There are other issues described in the petition for cert., but basically, I think that is a key here.

Here we have a situation where we are talking about verification, but it's not described how the verification takes place. If I act consistently with the way I see things under Section 112 in the Nautilus and Biogen case, I probably would be concerned about this issue of validity. That's beyond the Markman. In the Markman my purpose is to define and define in a neutral way so as to not advantage either side, but to be accurate to the claims themselves. But here there is no specification, it seems to me, how verification should be accomplished.

MR. ZOLOTOREV: Your Honor, if I may be heard very briefly on this point, there is a reason.

THE COURT: For purposes of my saying this is just to excite those comments. You don't have to apologize for rising. I want you to.

MR. ZOLOTOREV: There is a reason why JPMC hasn't brought an indefiniteness issue to these terms.

THE COURT: Say that again.

MR. ZOLOTOREV: There is a reason, your Honor, why JP Morgan Chase has not brought an indefiniteness challenge to any of these terms.

THE COURT: It's not time for it. They are waiting for this proceeding.

MR. ZOLOTOREV: There is another reason for it. The specification is very clear and provides embodiments and specific details about what a sample certificate could be, how one would go about verifying the authenticity. That is all presented in the specification at a very, very low level of detail, sometimes down to the actual commands, computer commands.

THE COURT: You mean high level of detail.

MR. ZOLOTOREV: Both high and low. We go from concept to actual algorithms. That is all in the specification. If I can put up figure 3 of the patent, if that's possible.

Your Honor, figure 3, which you have on your screen now, is an example of what a certificate could look like. And it has various fields that are all described in the specification. And if we go back to claim 18, remember, claim 18 talks about asking for a certificate, and generating to ask for a certificate you basically fill out an application and the term that we are actually trying to construe, your Honor, is data items required for a public key certificate. And the claim itself tells us that the one thing you got to have, you need to have in that application is the public key that you are going to be certifying and that is certainly one of the fields in this embodiment. But here we can see why the patent

talks --1 THE COURT: Configured by a certain algorithm. 2 3 MR. ZOLOTOREV: Correct. 4 THE COURT: Which your system will recognize. 5 MR. ZOLOTOREV: Which the system will recognize and read the fields. 6 7 THE COURT: By signature you don't necessarily mean a manual signature. You need a certain algorithm. 8 9 MR. ZOLOTOREV: The patent describes that the process 10 of a signature would typically involve in description so this 11 is an automated process, obviously. A person wouldn't be able 12 to accomplish it. 13 THE COURT: My question to both of you is whether this 14 information should be incorporated in the definition of the claim. 15 MR. ZOLOTOREV: We believe, your Honor, the claim 16 17 itself tells you the minimum needed information. 18 THE COURT: I don't think so. So I ask the question. MR. ZOLOTOREV: Your Honor, if your Honor is concerned 19 20 that just the public key, providing the public key is not 21 enough --22 THE COURT: In every patent description, any

THE COURT: In every patent description, any advancement of a claim, there is attention to how much to disclose. The more you disclose, the more the claim is bound up with information, the narrower the claim and that gets in

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the way of patent infringement litigation. The more general the claim, if it serves the function of validity, the more general the potential for a patent infringement litigation.

So when I ask this question, how much of the specifications should be incorporated into the definition, I'm very much aware of the significance of my question. And I will tell you my bias, which is in favor of description. So I would want to include the specification language in the definition of the claim because I think it's necessary for validity and it's not my job to invalidate patents. It's my job to understand the patent and to examine its validity in the context of the full understanding and any relationship to prior art.

MR. ZOLOTOREV: Your Honor, if this is your Honor's concern, I have a very specific suggestion for where to look in the specification.

THE COURT: I want you to give me a definition of the claim, not this minute, but I want a better definition of the claim.

Mr. Roberts.

MR. ROBERTS: Yes, your Honor. This is exactly our issue on this patent, which is, they have proposed plain and ordinary meaning on everything and won't give us any constructions.

THE COURT: Maybe they will think differently then.

Mr. Roberts, I understand. You notice that there are very few

instances where I have accepted. I think you have an understanding where I'm coming from.

MR. ZOLOTOREV: Your Honor, in fact, I can propose a construction that I think addresses --

THE COURT: Do it at lunchtime. I want Mr. Roberts to see it and think about it and put it to me.

MR. ZOLOTOREV: Very well, your Honor. Thank you.

THE COURT: You know what I want.

MR. ZOLOTOREV: Thank you, your Honor.

THE COURT: That takes us now to what number?

MR. ZOLOTOREV: Your Honor, the chart includes a number 5, which is a certificate. The parties, in fact, have agreed --

THE COURT: I said before that I am not interested so much in the specific components of these phrases A and B. I want a definition of the whole, not of the little pieces, because I think I have to charge the whole for the jury and it's not possible, in my opinion, to understand it, so I want a better and clearer statement of A and B.

MR. ROBERTS: Your Honor, we will give you A.

THE COURT: I want you to work together.

MR. ROBERTS: We will work together on it. I would submit, your Honor, that there are disputes about the meanings of these individual components and ambiguities in them. For example, when it says items required, are we talking about all

of these items shown in the picture or just some?

THE COURT: Can you put up the language.

Go ahead, Mr. Roberts. Show me specifically.

MR. ROBERTS: Here: Data items required for a public key certificate. What do they claim are those items? Is it just going to float and as we go through the case they are going to say it changes from day to day? We would like to know what they are for both validity and infringement.

THE COURT: I think what Mr. Zolotorev says is that by referring to that bar graph in the previous picture, in figure 3, those are the items.

MR. ROBERTS: If they were willing to say that each of those items is required, we would agree and we would move on, but they are not willing to say that.

MR. ZOLOTOREV: Your Honor, figure 3 shows one example of a certificate. I believe we can work together and there is a place in the specification.

THE COURT: No one wants to tie himself to an exclusion. By saying only this, he leaves himself open because there may be others. But I think it's sufficient to give a very good example and this is a very good example. Figure 3 is a very good example.

MR. ROBERTS: Your Honor, there is a difference between saying what is the minimum, what is required and saying there may be other things in addition.

THE COURT: I have to work with the Second Circuit tests all the time. The Second Circuit loves tests. Seven tests, seven criteria and so on. But they always say, you don't have to satisfy each one. You have to satisfy the tests. But you can have some on your side, some on the other side. You do an evaluation. Maybe that's what's needed. I don't know. I have not thought about it because I have not seen it.

But I think Mr. Zolotorev has come up with something. Are these all required? Is there some that's required? Is there a human agency that makes an evaluation? If there is an objective criteria, there is an algorithm that has to be disclosed because that's the key. If it's subjective in some fashion, that has to be disclosed. But I think Mr. Roberts is entitled to know that.

MR. ROBERTS: Can we put up slide 24, please.

Your Honor, the way I suggest and the way we have drawn our construction is to look at what the specification says the purpose of this is. And it says: The certificate authority vouches for the identity of the public key owner, for the integrity of the public key itself, for the binding between the public key and the owner's identity. That's where we get that binding language from. And, optionally, for some additional capabilities of the certificate owner in the electronic environment. This guarantee is reflected in the certificate.

THE COURT: Where did you get this from?

MR. ROBERTS: This is from the specification at column 10, line 45 through 52. And it's the clearest statement that there is. And we think that the certificate, therefore, at a minimum, what's required is a public key and the user's identity because it is going to vouch for those two things and bind them together. It must have those two things. And that's where we came up with our definition, which was the public key and the user's identity.

THE COURT: I think it needs some discussion between you. I think now you know how my understanding is, my requirements are. You can look together to see if you can satisfy it. Of course, you do what you think is important for your own case. To the extent you can get together on this, it would be useful.

MR. ROBERTS: As an efficiency point, your Honor, since they have proposed plain and ordinary meaning for every single term in this patent, might we suggest that we move on to another patent and give them an opportunity to write down constructions for all --

MR. NAGY: There are 14 more, your Honor. There are 17 in total and all of them are going to present this same issue where IV --

THE COURT: Let me ask this. Put up the claim again.
MR. ROBERTS: Slide 23, for example.

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THE COURT: This is claim 18, A and B. Look at your
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              Which claim term? What number claim term reflects 18A
 2
      chart.
 3
      and B?
              What number?
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              MR. ROBERTS: 18A and B are reflected in item number
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      4; item number 5, although that's agreed; item number 6.
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               THE COURT: They are consecutive.
 7
              MR. ROBERTS: Item number 7, although 7 appears --
              THE COURT: Mr. Roberts, they are consecutive.
 8
9
              MR. ROBERTS: Yes. I don't have off the top of my
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      brain, your Honor --
               THE COURT: I'll tell you. 3 through 7.
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12
              Mr. Zolotorev.
13
              MR. ZOLOTOREV: I believe that's correct, your Honor.
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              THE COURT: We are down to 8. What claim number?
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              MR. ZOLOTOREV: 8. We agreed upon the construction of
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      8, your Honor.
17
               THE COURT: Why don't you answer my question.
              MR. ZOLOTOREV: 8 appears in the dependent claim.
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              Just a second to go forward here. The term is
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      application. The term is application, your Honor. It appears
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      in dependent claim 21.
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               THE COURT: You want to put that up. I don't
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      understand the term application.
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              MR. ROBERTS: Your Honor, I believe that we agreed
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      that it's a computer program, and I believe we did that just
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before the hearing today. We could argue and present data. If they still stand by that agreement, then I think we are done.

THE COURT: Expiration of an existing certificate is defined as after the expiration date in the certificate.

MR. ROBERTS: Yes, your Honor. This is just -THE COURT: I assume that there is a date in the

THE COURT: I assume that there is a date in the certificate that caused it to expire at a certain time, or is it a condition that causes expiration?

Mr. Zolotorev.

MR. ZOLOTOREV: Your Honor, there is no requirement. That is our problem with the construction. There is no requirement that there be a date in the certificate, but certainly this is a timing issue.

THE COURT: You agree.

MR. ZOLOTOREV: We agree with JP Morgan Chase that expiration of a certificate refers to a time. So a time comes --

THE COURT: After the expiration date in the certificate.

MR. ZOLOTOREV: What we disagree with, your Honor, is that the construction offered by JP Morgan Chase referred to an expiration date that has to be somewhere in the certificate itself.

THE COURT: Show me the claim. The method of claim

18, performed upon expiration of an existing certificate, where

the new certificate may contain either the existing or a new 1 2 public key. 3 It doesn't say date and it doesn't say where. How do we find out what the expiration is? 4 MR. ZOLOTOREV: The expiration date may be in the 5 certificate. It may also be something that's kept --6 7 THE COURT: I repeat my question. How do we find out 8 when the certificate expires? 9 MR. ZOLOTOREV: We either consult the certificate, if 10 it has the date on it, or we can consult third-party database 11 software, for example. 12 THE COURT: I need a definition. You are not defining 13 it. You are going to define it with Mr. Roberts. 14 MR. ZOLOTOREV: Thank you, your Honor. 15 THE COURT: Number 10. In common with. 16 MR. ROBERTS: Your Honor, we did propose a 17 construction. 18 THE COURT: Please don't boast about how good you are. MR. ROBERTS: No, your Honor. 19 20 THE COURT: He says that the construction that he 21 suggested is not accurate. He is going to have to come up with 22 something else. 23 10. In common with. Let me see the claim. 24 MR. ZOLOTOREV: Can we put up slide 41, please.

THE COURT: I need the definition of in common with,

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1 unless it's also trusted by.

 $$\operatorname{MR.}$$ ZOLOTOREV: I think we would be fine with also trusted by.

THE COURT: Okay. Adopted.

Next, verifying the authenticity of signatures it.

MR. ZOLOTOREV: Slide 44, please.

THE COURT: Can you accept the JP Morgan suggestion?

MR. ZOLOTOREV: I don't believe that we can, your Honor, just because it introduces terms that are not used in the claim. So it introduces more complexity than the plain language of the claim.

THE COURT: What's the method? How is the verification to be acknowledged?

MR. ZOLOTOREV: The verification in this method is accomplished it. Iteratively, meaning one by one. And that may be what JP Morgan's construction is getting at. But it's using terminology that is nowhere found in the claim.

THE COURT: It may be in the specifications. You use a method of verifying. What is the method? If there is nothing in the specifications of the patent, that means anybody can figure out any method. How do you verify the signed data structure.

MR. ZOLOTOREV: The specification.

THE COURT: Same point, Mr. Zolotorev. We don't need to waste time. All these things require definition. If you

want to save your patent, you are going to have to figure out the specifications.

MR. ZOLOTOREV: We would be fine, your Honor, with iteratively as being defined as one by one, which is what the specification tells you to do.

MR. ROBERTS: That is absolutely not accurate.

THE COURT: Mr. Roberts, don't jump up so fast. Iteratively is not sequentially. Iteratively connotes a repetition, a series.

MR. ZOLOTOREV: Correct, your Honor.

THE COURT: What is the iterative quality that is involved? Doesn't say one by one. It says there is a process here. There is an intelligence embodied in a process. It's got to be described in some fashion. You got specifications that describe it?

MR. ZOLOTOREV: Yes, your Honor, we do.

THE COURT: Do it.

MR. ZOLOTOREV: We can start with --

THE COURT: This process is not only plain meaning of terms. It's a process of ordinary and customary meanings as understood by a person of ordinary skill in the art when read in the context of specification and prosecution history. I quote from Thorner v. Sony Entertainment America, LLC, 699 F.3d 1362 at page 1365 (Fed Cir. 2012) and many other cases like that.

My job here to make this intelligent, not by a bunch of words, but by a meaningful exercise that is intelligible to a jury. That's what we are going to do. That's the purpose of this exercise. And you can't say interpretation and terms not required. They are required. Let's incorporate what they teach from the specifications so that people can understand what the invention is.

MR. ROBERTS: Your Honor, can I show you what the specification says?

THE COURT: No. That's for Mr. Zolotorev and you to work out together.

MR. ZOLOTOREV: Okay, your Honor. We will.

THE COURT: It's now almost 12:45. I have to break for lunch. I have a different suggestion. My suggestion is that we break for the day. You've got a lot of work to do and we have a session tomorrow starting at 11:00. If you want, I can postpone that, too. But I think we will work with a great deal more efficiency if you have more time together, now that you understand my attitudes, with your colleagues whether or not you want to address those attitudes.

MR. ZOLOTOREV: Certainly, your Honor. If I may confer with my colleagues on the timing.

THE COURT: Sure.

MR. ZOLOTOREV: Your Honor, the suggestion from my colleagues would be that perhaps we can address one of the

shorter patents, like the '694 patent, today, where there is only very few terms. THE COURT: Let's come back at 2:15. Mr. Nagy. MR. NAGY: Your Honor, one point. You seem to want constructions where it's now just plain ordinary for all of the remaining terms. I just want to be sure that's right, so we can come back to you where they have a proposal, we have a proposal --THE COURT: It's not important for me to repeat. Lunch break. See you at 2:15. (Luncheon recess)

AFTERNOON SESSION

2:15 p.m.

MR. ALBERTI: Your Honor, I would like to excuse my colleague, Jake Zolotorev, so he can go back and work on those '574 constructions. I wanted to make sure we didn't get back to that patent today before I excuse him, since he is the most qualified to speak to that.

THE COURT: I don't plan to.

MR. ZOLOTOREV: Thank you, your Honor.

THE COURT: What are we going to cover now?

MR. NAGY: Your Honor, the '694 patent, which has two terms in dispute.

THE COURT: This patent covers a method for filtering packets of information, based on the data contained in multiple packets. A packet of information typically has two components: The header, which contains information about the destination and source, and the payload, which contains the data.

Frequently data is spread over several packets. The patent filters packets based on the data contained in the payload of multiple patents. Again, I have got to work on this.

And there are two items in dispute.

The term packet, according to Intellectual Ventures, is defined as a discrete unit of structured information defined by a network communications protocol. JP Morgan defines it as a discrete unit of information, suggests a discrete unit of

information being routed through a computer network. 1 2 MR. NAGY: Your Honor, we have no problem with that. 3 THE COURT: What's Intellectual Ventures' position? 4 MR. ALBERTI: Your Honor, there is two issues that we 5 have with that. The first is that a packet does, in fact, have 6 structure according to the '694 patent. In particular, within 7 the claim itself it indicates some of that structure, which is at least a header that includes certain parameters and a 8 9 payload. And one of the parameters would be a parameter 10 identifying protocol. 11 THE COURT: How would you define it? 12 MR. ALBERTI: I would define it as a discrete unit of 13 structured information --14 THE COURT: Structured because there is no 15 information. It's just a big word which doesn't mean anything. MR. ALBERTI: A discrete unit of information routed 16 17 through a computer network defined by a network protocol. 18 MR. NAGY: Your Honor, may I respond to that? 19 THE COURT: Yes. 20 The problem with that, your Honor, is the MR. NAGY: 21 patent is clear that that additional limitation is not part of 22 what a packet is. 23 I agree. THE COURT: 24 MR. NAGY: Thank you, your Honor. 25 THE COURT: What about adding to a specific

destination or to a designated destination or to a designated addressee?

MR. NAGY: Your Honor, we have got an objection there and the problem with that, this patent is about filtering packets. One of the types of packets you might want to filter are, for example, malformed packets. They are going to where they are not supposed to be going and there is no need for a packet to have a specified destination. The specification actually tells us that. It says a packet might have a header, but it might not. It might have a payload. It might not. It doesn't have to have a destination and it really goes to the point of the invention in the sense that you might have a malformed packet, exactly what you want to exclude. We don't need to do more, Judge, than what we've done.

MR. ALBERTI: Your Honor, I would disagree with that.

THE COURT: Adding the word often. A discrete unit of information being routed through a computer network often to a designated addressee.

MR. ALBERTI: I'm fine with that.

 $$\operatorname{MR.}$ NAGY: Just one second, your Honor. I want to make sure I have your construction right.

THE COURT: A discrete unit of information being routed through a computer network often to a designated addressee.

MR. NAGY: Can we move often, your Honor, to before

being. Often being routed through a computer network.

The reason we think we ought to qualify it that way, a packet doesn't always have to be routed through a computer network. It could be within a single computer, it could be at rest and it would still be a packet if it were at rest. We don't want to suggest that a packet is not a packet unless it's being routed.

THE COURT: The purpose of having it as a packet is to be routed.

MR. NAGY: That's right, your Honor.

THE COURT: Okay. Done.

Second, a combination of the contents of the packet received in step A and the contents of at least one other packet. JP Morgan doesn't offer anything else.

Intellectual Ventures.

Let me suggest what I think. A combination of the contents of the payload of the packet received in step A, identified in step A, and the contents of the payload of at least one other packet. I'll read it again.

A combination of the contents of the payload of the patent identified in step A and the contents of the payload of at least one other packet.

MR. ALBERTI: Intellectual Ventures agrees with that, your Honor.

MR. NAGY: Your Honor, we disagree.

Can I have slide 28, please.

Judge, the reason we disagree is, this particular construction, it's the only one of the 38 constructions you have, is not really a construction. It's a request to correct what IV claims was a mistake made by the examiner. However, Judge, when you look at history here, the examiner simply did not make this mistake. And what we are showing you here to try to capture this is just one example.

THE COURT: How would you change the definition?

MR. NAGY: I would change the definition, your Honor,
by not altering the claim language in the second part of it.

So you should not say in the second step. The contents of the payload. It should simply be what it is now. The contents of other packets. Intellectual Ventures doesn't contend that contents of the packet actually means contents of the payload.

We are in agreement that a packet and a payload are different things.

THE COURT: I think the definition, focusing on payload, is better because it's not the header that's being prepared.

MR. NAGY: Your Honor, if I may, if you look at slide 28, this examiner actually rejected as anticipated by prior art the construction that you're about to give. If you take a look at IV's construction, they say payload, payload. We say payload --

1 THE COURT: Why do you care? If this is anticipated by prior art, you have a motion. 2 3 MR. NAGY: We do have a motion, your Honor. 4 THE COURT: Why do you care? 5 MR. NAGY: We care, your Honor, because the 6 construction is wrong and we think there are a number of issues 7 implicated by this. The examiner looked at a claim. were 26 claims originally submitted. He said claim 26 does 8 9 exactly what you are saying, payload payload. 10 Go back. We will show you the claim 26. 11 THE COURT: What's the difference between contents and 12 payload? 13 MR. NAGY: Contents is broader, your Honor. 14 THE COURT: Why? 15 MR. NAGY: For example, if this is a packet with a header in a payload, it includes the header. It is not limited 16 17 to the payload. There is no ambiguity here, your Honor. 18 THE COURT: Can you not answer until I ask. Both of 19 you, keep quiet. 20 In my introduction I have defined a packet typically 21 having two components, the header and a payload. Does it have 22 other components? 23 It might, your Honor. MR. NAGY: 24 THE COURT: For example. 25 MR. NAGY: For example, it could have something called a footer or it might have another field, depending on what kind of packet it is. And the examiner was clear. You are not being asked to change this. You are not being asked to define contents of the packet because they actually believe a packet means a payload. They say the examiner made a mistake. He could not have made a mistake, your Honor. He repeatedly addressed this language. And he found that a claim that was proposed, claim 26, that was payload payload, payload of the packet identified in step A and payload of other packets, he rejected that.

And I raise that just to make clear that there wasn't a mistake by this examiner. Therefore, you ought to not redraft this claim. That's the issue. Should you redraft it, we don't think you should, your Honor, because it's clear, he didn't make a mistake. Might we challenge this as invalid? Sure. That's not a reason, however, to redraft the claim.

THE COURT: Would you put up on the board the claim.

MR. NAGY: We have the claim in slide 9, please.

THE COURT: I think I would accept the proposition of JP Morgan not to have an interpretation.

MR. NAGY: Thank you, your Honor.

MR. ALBERTI: Your Honor, I would like to be heard on that. If we take a look at the claim, the language of the claim is right in front of us. And this was discussed at length in the tutorial and your Honor correctly noted at that

time what this patent deals with is the looking at multiple payloads. That, in fact, is what distinguishes this patent from the prior art. And if you go step by step, you'll see that the selecting step, which is step B, recites: Selecting an access rule based upon the contents of the payload received in step A.

And when we take a look at what was added to the implementing step, which is step C, the additional language that was added was the, wherein the access rule is selected based on a combination of the contents of the packet received in step A. The word the contents refers back to the contents contained here in step B, which is the contents of the payload and the contents of at least one other packet.

THE COURT: It says step A.

MR. ALBERTI: Correct. But the selecting rule in step B is very clear, that selecting is based on the contents of the payload of the packet. When you see the contents in this claim, the only time that word is used is to refer to the contents of the packet payload.

THE COURT: You have to have similarity between both parts of the phrase. These phrases are in apposition. They are intended to have similar connotations. So the words used should be the same. If it says the contents of the packet received in step A, it should say the contents of at least one other packet. If payload is introduced into the first part,

payload should be introduced into the second part. If it's 1 2 not, it should not. That's my ruling. 3 I go by JP Morgan that an interpretation is not 4 required. 5 MR. NAGY: Your Honor, as a housekeeping matter, we 6 have two patents left. You had proposed finishing tomorrow --7 THE COURT: Let me finish this one. MR. NAGY: Apologize. We are finished. 8 9 THE COURT: I have the agreed terms. 10 MR. NAGY: That's right, your Honor. THE COURT: What's the reason for the underline in the 11 12 claim terms selecting an access rule? 13 MR. NAGY: Your Honor, it's simply to delineate which 14 corresponds to which in the agreed construction. If it's

MR. NAGY: Your Honor, it's simply to delineate which corresponds to which in the agreed construction. If it's confusing, your Honor, we just don't need it. You can omit it in both parts.

THE COURT: I adopt the agreements.

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So we are not involving ourselves in the '574 patent and the '666 patent.

MR. ADAMO: Your Honor, good afternoon. We are ready to proceed on '666 right now or if your Honor chooses or it will be easier for the Court, we can come back tomorrow morning. I don't think it's going --

THE COURT: Let's go ahead. Let's do as much as we can.

MR. ADAMO: Very good. Thank you, sir.

THE COURT: I introduce it as follows: This patent covers the crypto-engine, a processor which is dedicated to encryption or decryption. The crypto-engine can use two protocols for encrypting or decrypting data: RSA, which bases computations on the multiplication of large prime numbers and ECC, which bases computations on an elliptic curve. Both protocols use modular multiplication.

We are going to have to do better on this because these are terms that the jury may not be familiar with.

There are three items in dispute. There are actually seven items in dispute. First one is multiplication unit.

There is a difference because JP Morgan wants to add the word solely, which is not in the claim, so I would like to define it as a unit capable of performing multiplication, which is the suggestion of Intellectual Ventures.

MR. ADAMO: Your Honor, if the Court recalls, when we were here during the tutorial, counsel for IV agreed with using the language and your Honor quoted Mr. Lim's statement. I'm at record page 114, line 19 to record page 115, line 4 when I said: In particular, the modular multiplication unit is capable of doing one thing and only one thing. It can't do anything other than multiply. Your Honor then said: I think Mr. Lim said that it's dedicated to multiplication. I said yes. And not just dedicated to it, it's incapable of doing

anything else. And you said: Same thing. And similarly --1 2 THE COURT: You would be happy if I say unit dedicated 3 to performing multiplication. 4 MR. ADAMO: I would, sir. That would be fine. 5 THE COURT: Who is responding? 6 MR. LIM: I am, your Honor. 7 If I may refer your Honor --THE COURT: Tell me whether you go along with what I 8 9 said. 10 MR. LIM: We would like to have a unit capable of 11 performing multiplication. The units are not dedicated or 12 solely. Neither of those terms appear in the claim, 13 specification or the prosecution history. 14 THE COURT: Put up the claim, please. 15 How do you distinguish the multiplication unit from the addition unit? 16 17 MR. LIM: By the fact that the multiplication unit is capable of performing multiplication and the addition unit is 18 capable of performing addition, your Honor. The function that 19 20 it's capable of performing delineates the three units. 21 THE COURT: I don't think I need to add solely. Go 22 with Intellectual Ventures. 23 MR. ADAMO: Your Honor, during the prosecution of this 24 patent -- could I have slide 8, please -- there was a rejection

over the Stujanic reference, I believe is the right way to

1 pronounce it. 2 THE COURT: I can end this. How about defining a unit 3 that performs multiplication? 4 MR. ADAMO: That definition leaves the term open to, 5 it could also perform addition. 6 THE COURT: But it's not being defined that way. 7 if you want to do it, you can do it. It's a unit that performs multiplication. That's the way it's going. Unit that performs 8 9 multiplication. The addition unit is a unit that performs 10 addition. 11 MR. ADAMO: Same comment for the same reasons, your 12 Honor. I understand the Court's ruling. 13 THE COURT: Overruled. 14 Third, sign inversion unit. What's sign inversion, Mr. Lim? 15 MR. LIM: Your Honor, it's the same issue. As you can 16 17 see --18 THE COURT: What is sign inversion? 19 MR. LIM: Simply inverts a sign of a number, your 20 Honor. 21 THE COURT: Sign or cosign, you mean. 22 MR. LIM: Positive number to negative number, negative 23 number to positive number. Inverting the sign of the number. 24 THE COURT: How about say a unit that changes positive 25 numbers into negative numbers and negative numbers into

1 positive numbers? 2 We are okay with that. MR. LIM: 3 MR. ADAMO: That's acceptable to JP Morgan Chase. 4 THE COURT: That's acceptable to Mr. Adamo. 5 Fourth claim in dispute is output. I don't think it need to be defined. 6 7 MR. LIM: Agreed, your Honor. MR. ADAMO: Your Honor, are you just not going to then 8 9 instruct the jury as to any meaning of the word output? 10 THE COURT: I have to instruct the jury as to the 11 whole claim, right? 12 MR. ADAMO: Yes. 13 THE COURT: That's a word in the claim. They know 14 what output is. 15 MR. ADAMO: Understood. THE COURT: It's the antonym of input. 16 17 Your Honor, just for a moment can I have MR. ADAMO: slide 5, please. 18 Your Honor, the reason that we think a definition of 19 20 output would be important in the context of figure 2 of the 21 patent, which is shown on this slide 5, would be to make it 22 clear that the lines that say temp data that your Honor can 23 see, that's what the output is that the claim is talking about 24 that speaks -- look at either claim 1 or claim 4. It talks

about the outputs of the multiplication unit, of the addition

unit, and the sign inversion unit. So the outputs are the temp 1 data items that are shown coming out of the modular 2 3 multiplication unit 15. 4 THE COURT: It's either an output or an input if it's 5 moving. We don't need it. Understood, your Honor. 6 MR. ADAMO: 7 THE COURT: Next one is feedback. I don't think we 8 need anything here. 9 MR. LIM: Agreed, your Honor. 10 MR. ADAMO: Your Honor is just, again, going to read the claim with the term feedback. 11 12 THE COURT: Correct. 13 MR. ADAMO: In context, sir. 14 THE COURT: Correct. 15 MR. ADAMO: Understood. 16 THE COURT: Next is host processor. What is the 17 claim? 18 Mr. Lim, in your own words, what do you mean by host 19 processor? 20 MR. LIM: Your Honor, host processor, the spec 21 provided that plain ordinary meaning of what a host processor 22 is. 23 Can I have slide --24 THE COURT: Can you just talk to me.

MR. LIM: I'm sorry.

1 THE COURT: Person to person. I'm on the street. We are having drinks. 2 3 MR. LIM: A host processor --4 THE COURT: I heard this term host processor. What 5 does host processor mean? 6 MR. LIM: The central processor that is running this 7 main computer. 8 THE COURT: Why can't we say that? 9 MR. LIM: I'm sorry. Maybe I'm a little nervous. 10 Yes, that's what it is. 11 THE COURT: Mr. Adamo, how do you define the host 12 processor? We are having drinks. I ask you a question. I use 13 the phrase host processor. What do you mean? 14 MR. ADAMO: Host processor is the processor that runs 15 the computer at a slower speed than the processor that's 16 located in the crypto-engine. 17 THE COURT: I don't know what you're talking about. MR. ADAMO: Slower. It goes 10 miles an hour, your 18 19 Honor, while the processor in the claim crypto-engine goes 50 20 miles an hour. 21 THE COURT: Why should a host be slow? 22 MR. ADAMO: That's the way it's defined and it's used 23 in the context of the alleged invention here. One of the three 24 main characteristics of the alleged invention is that the

processor and the crypto-card works ways faster than the host

1 processor. 2 So what. THE COURT: MR. ADAMO: That's what the claimed invention's 3 4 alleged benefits are. 5 THE COURT: Show me. 6 MR. ADAMO: Your Honor, if you would look at both 7 column 1. THE COURT: Sit down, Mr. Lim. You're ahead. 8 9 MR. ADAMO: In the summary of the invention section, 10 there is a reference at column 1, line 33 to asymmetric 11 cryptographic processing, column 1. 12 THE COURT: Let's look. 13 MR. ADAMO: Column 1, lines 30 through 36, summary of 14 the invention. It's the second line we can see there, your 15 Hardware-based crypto-engine for asymmetric cryptographic processing. That means we have got two different 16 17 speeds at least involved in the cryptographic processing. 18 then if your Honor at column --19 THE COURT: Could be anything. Asymmetric could be 20 anything. 21 MR. ADAMO: Your Honor, besides the language in claim 22 4, if your Honor would also look at column 2, starting at line 51. 23 24 Mr. Lim, write down what you told me so THE COURT:

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you don't forget.

MR. ADAMO: You'll see number 3.

The asynchronous executing of the hardware modules in much higher speed than the processor communicating with it, heterogeneous processing. In English that means that the cryptographic engine processor is running at a much higher speed than the processor it's talking to. That's the host processor. That's what that means in plain English. And that's because the RSA and the ECC require the computation of huge amounts of numbers.

THE COURT: I rule that these are perhaps useful in the description of functions, but it's not an essential part of the definition. It would only complicate and confuse things.

So a host processor is, Mr. Lim?

MR. LIM: It is a processor that runs the main computer, central processing unit that runs the main computer.

THE COURT: Central processor that runs --

MR. LIM: The main computer.

MR. ADAMO: Understood, your Honor. My objection --

THE COURT: Is overruled.

Central processor that runs the main computer. You can't say main computer. Main means, in effect, host. How about the other computers?

MR. LIM: The computer system.

THE COURT: Runs the computer system.

MR. LIM: Yes.

1 THE COURT: A central processor that runs the computer 2 system. 3 MR. ADAMO: Your Honor, with respect, there is no 4 support for these terms in the specification in any location 5 and it's inconsistent with the prosecution as well. 6 THE COURT: Hosts suggests something central on which 7 others focus. We are talking about a computer system and we are talking about the processors in the computer system. 8 9 think it does. Overruled. 10 7. Op-code signal. 11 MR. ADAMO: The claim would be the best place, your 12 Honor. 13 THE COURT: A cryptographic controller generates 14 status and interrupt signals for the host processor and generating an op-code signal for the arithmetic unit, the 15 arithmetic unit selecting RSA or ECC mode of operation based on 16 17 the op-code signal. 18 Op-code is gibberish. Does it mean operation code? 19 MR. LIM: Yes. 20 MR. ADAMO: Might I suggest this. 21 THE COURT: Op-code will be defined as an operation 22 code. 23 MR. ADAMO: Which does not mean anything to the jury.

If we just say operation code, they are not going to get the sense of what the claim calls out.

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May I propose this, your Honor: A signal capable of 1 indicating an RSA operation when it has a first value and an 2 ECC value when it has another value. That's the point. Zero 3 means it's running RSA. It should run RSA. 4 1 means it should 5 run ECC. That's what the claim is saying that the operation 6 code signal is. 7 THE COURT: Do you go along with that, Mr. Lim? MR. LIM: We only have one minor objection to that. 8 9 The word value. 10 THE COURT: Why don't you and Mr. Adamo talk off the 11 record and see if you come up --12 MR. ADAMO: I had suggested signal instead of value. 13 THE COURT: Sit down with each other off the record 14 and persuade each other. 15 (Discussion off the record) MR. ADAMO: Your Honor, we had an agreement. Should I 16 17 dictate it to the Court? 18 THE COURT: Yes. A signal capable of indicating an RSA 19 MR. ADAMO: 20 operation when it has a first characteristic and an ECC 21 operation when it has a different characteristic. 22 MR. LIM: Yes, your Honor. 23 MR. ADAMO: Do you have it, your Honor? 24 A signal capable of indicating an RSA THE COURT:

operation when it has one characteristic.

1 MR. ADAMO: When it has a first characteristic, your 2 Honor. 3 THE COURT: When it has one characteristic. And ECC 4 operation when it has a different characteristic. How will you 5 tell the jury what RSA and ECC is? 6 MR. LIM: That's in the specification. If I can have 7 column 1, line 9 and 10. That defines what that is. I am not sure if those words are better for the jury. 8 9 THE COURT: Let me see them. 10 MR. ADAMO: We are looking at the claim. 11 MR. LIM: We are looking at what RSA and ECC stand 12 for. 13 We can simply say that RSA and ECC are two modes of 14 cryptography or two protocols for cryptography. 15 MR. ADAMO: I have a two-word add that will do the same thing. A signal capable of indicating an RSA encryption 16 17 operation when it has one characteristic and an ECC encryption 18 operation when it has a different --19 THE COURT: I think we will do better separating them. 20 I'll add: RSA and ECC are two modes or protocols for 21 encryption. 22 MR. LIM: Protocols. Encryption protocols is what 23 that spec says right there. 24 THE COURT: Are two protocols for encryption.

MR. ADAMO: Could I hear it again with the Court's

last addition.

THE COURT: A signal capable of indicating an RSA operation when it has one characteristic and an ECC operation when it has a different characteristic. RSA and ECC are two protocols for encryption.

MR. ADAMO: Thank you, your Honor.

THE COURT: Here is what we will do. We will e-mail to each of you tomorrow this document I've created which will have the claim term and my proposed construction. In the claim term I want reference to the line number in the claim. I will leave out each of your proposals. I will include the agreements. I will ask you to review what I have. And if you feel that for reasons other than I've accepted or rejected today there are other things to comment on, you can add those comments. I also appreciate if you would look at a little introduction I have of the law, overview of introductions to each of the patents and see if they make sense; if not, to suggest changes.

And with regard to the two patents where we didn't do anything, I'll just repeat the information that we have here and leave my construction out. To the extent that you can agree, please do so. If it's subject to an objection to what I said is my guides, you will make those objections so you have a clear record. I propose that we cancel tomorrow so you have time to work together and we will convene at 10:30 Monday.

MR. ADAMO: I believe there is only one patent left, your Honor. I think it's '574. We just did '666.

THE COURT: We did '666. Yes, sir.

MR. LIM: Your Honor, may I propose a suggestion. To the extent that the parties are able to work out the differences on the '574 tonight, would your Honor be willing to have a short hearing tomorrow afternoon --

THE COURT: Let's cancel tomorrow. You have got a lot to do. In other words, you are thinking that we can do it tomorrow afternoon rather than come back on Monday? I'm open to that. 2:30. I'll reserve it. And if you want it, both of you, or not want it -- Mr. Lim, you call. I only need to know your separate positions. If you both agree for tomorrow, it's on. If you can't both agree, we will do it Monday at 10:30.

MR. LIM: Thank you, your Honor.

THE COURT: I also want to discuss with you what should be our next step. I would like you, respectively, to suggest where we go. We can do that on Monday or tomorrow, or I can schedule another day, because you may want to think about what you want to do and talk together and discuss with your clients. You needn't tell me now. You needn't tell me now. You can tell me when we are together. You can say, Judge, let's go on to the next stage, or, Judge, let's schedule a date for the next stage.

MR. NAGY: Your Honor, I was going to suggest that we

take it up tomorrow or Monday. THE COURT: I'm open to either way. But there are things that I'm doing that you may not have anticipated. It doesn't need to be a lot of time. I can meet with you, for example, next Friday. MR. NAGY: I think if we are able, perhaps, we can do it tomorrow, or perhaps next Friday. THE COURT: Either way. MR. LIM: Thank you, your Honor. THE COURT: We are recessed. Thank you very much. (Adjourned to Thursday, March 6, 2014, at 2:30 p.m.)